

# Supplemental Data for the 2001 NHTS

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Transportation Research Board Annual Meeting  
Observations on the NHTS  
January 12, 2003

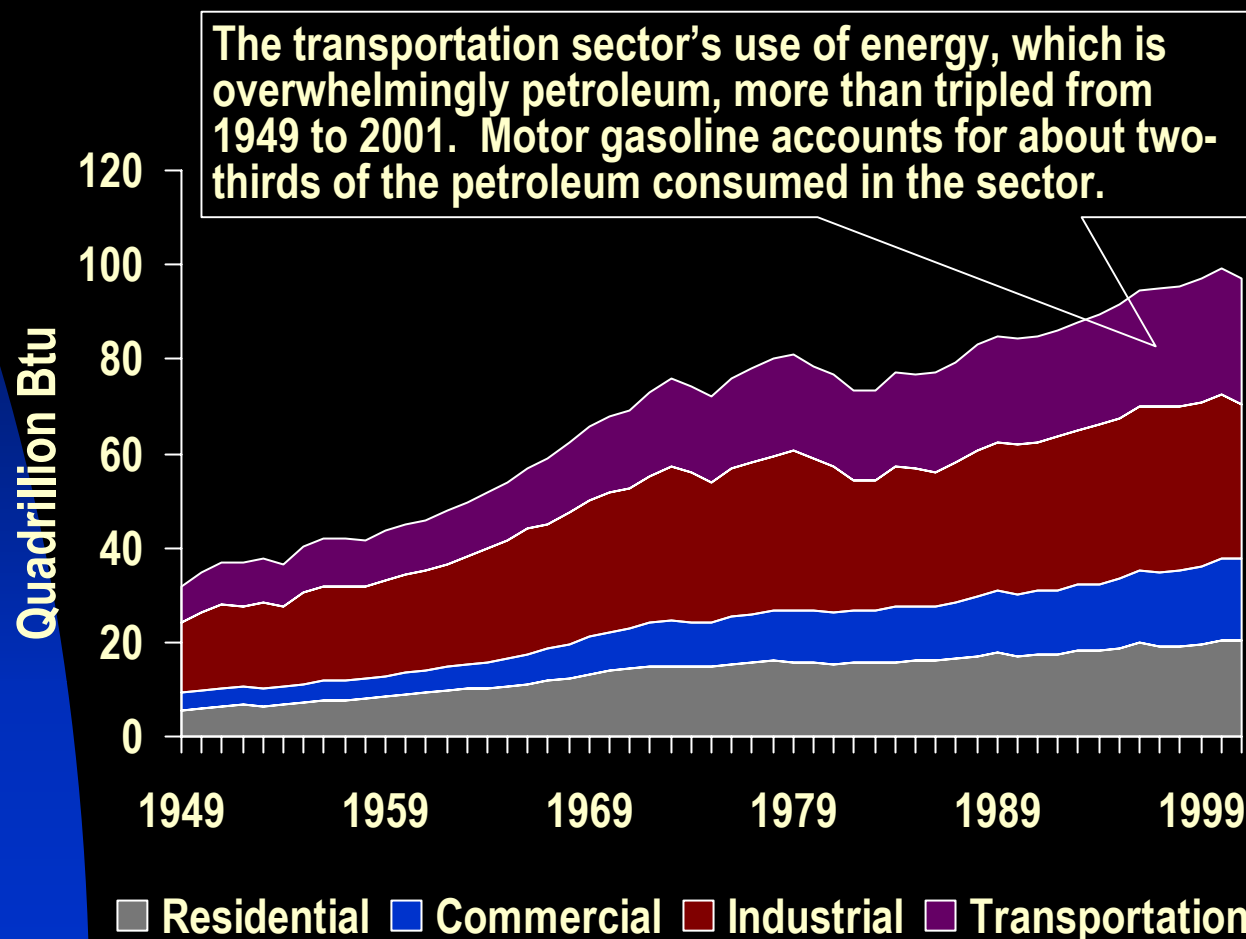
# Mission

The Energy Information Administration (EIA) is the statutorily chartered statistical and analytical agency within the U.S. Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Department of Energy, other Government agencies, the U.S. Congress, and the public. We produce data and analysis reports that are meant to help policy makers determine energy policy.

# Introduction

- EIA's Energy Consumption Division
  - ◆ Demand-Side of the Energy Equation
- RECS – Residential Households
- MECS – Manufacturing Plants
- CBECS – Commercial Buildings
- RTECS – Residential Transportation
  - ◆ 1983, 1985, 1988, 1991, and 1994
  - ◆ Discontinued after 1994
- Investigate the possibility of using 2001 NHTS as a replacement for discontinued residential transportation survey

# Energy Use



# Goal – Linking of Supplemental Data

- Enhance 2001 NHTS Data
  - ◆ Fuel Efficiency
  - ◆ Energy Consumption
  - ◆ Energy Price
  - ◆ Energy Cost
- Sources for Supplemental Data
  - ◆ EIA, EPA, and DOT/NHTSA Programs
  - ◆ Transportation Experts – EIA Staff
  - ◆ Automobile Manufacturers and Their Foundations
  - ◆ National Automotive History Collections
  - ◆ Library of Congress

# Linking Sup. Data

- NHTS “Core” Sample (53,278 Vehicles)
  - ◆ Make (348)
  - ◆ Model (2,482)
  - ◆ Model Year (76)
  - ◆ Type (8)
- Linking Variables from Sup. Data
  - ◆ Manufacturer (39)
  - ◆ Model/Nameplate (926)
  - ◆ Model Year
  - ◆ Vehicle Class (12)
  - ◆ Vehicle Type (4)

# Sup. Data (continued)

- More Supplemental Vehicle Data
  - ◆ Fuel Efficiency (EPA's 45/55 Combined)
  - ◆ Vehicle Production/Sales (NHTSA)
  - ◆ Fuel Meter System
    - ★ Diesel, Carburetor, Electric, Fuel Injection, Dual-Fuel Alcohol, Dual-Fuel Ethanol, Dual-Fuel Methanol, Natural Gas, Port Fuel Injection, Super-Charged Fuel Injection, Turbo-Charged, Throttle Body Injection, Turbo-Diesel, Turbo-Charged Fuel Injection, Turbo-Charged Port Fuel Injection
  - ◆ Engine Type
    - ★ Diesel, Electric, Otto

# Linking: 1 to Many

Volkswagen, Jetta, 2001, Auto, ??.

MPG 45/55

1

Many

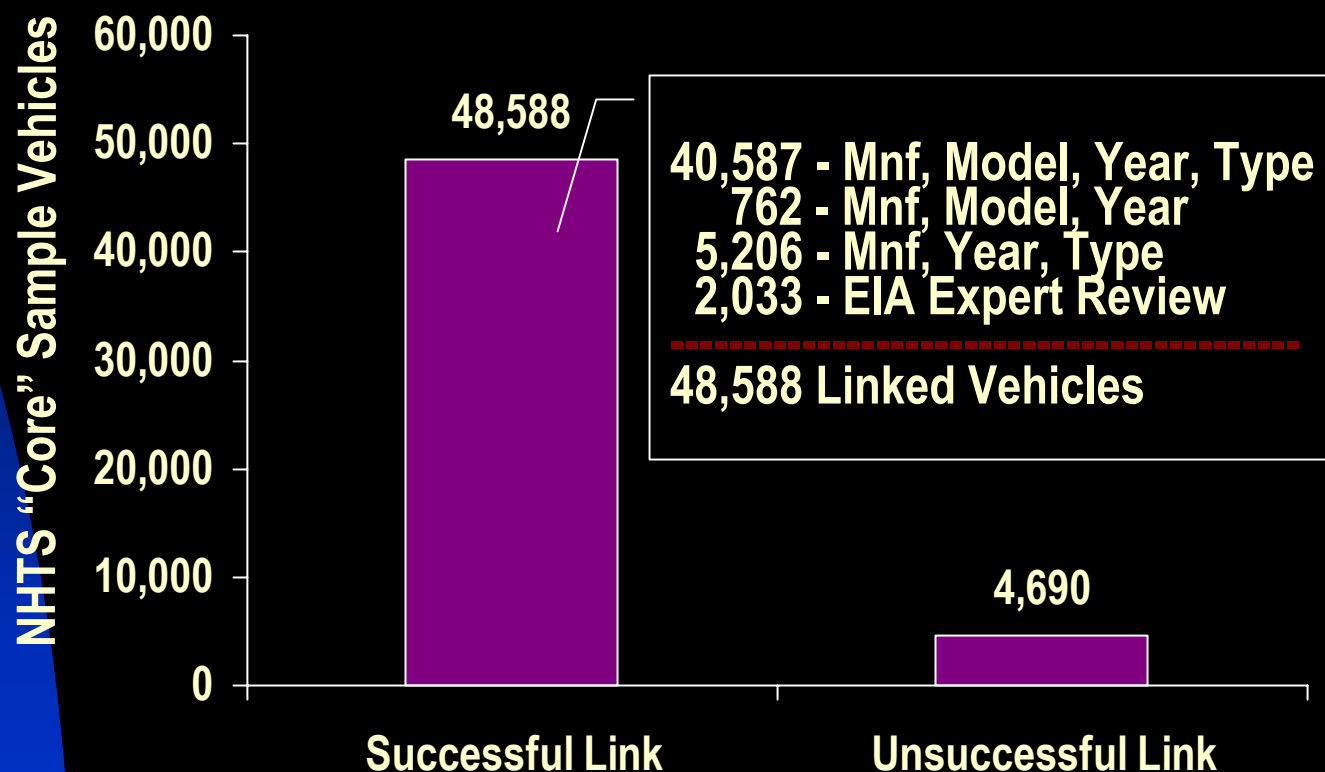
Volkswagen, Jetta, 2001, Auto,	44.8
Volkswagen, Jetta, 2001, Auto,	26.3
Volkswagen, Jetta, 2001, Auto,	52.6
Volkswagen, Jetta, 2001, Auto,	29.4
Volkswagen, Jetta, 2001, Auto,	29.2
Volkswagen, Jetta, 2001, Auto,	25.1
Volkswagen, Jetta, 2001, Auto,	31.7
Volkswagen, Jetta, 2001, Auto,	31.4
Volkswagen, Jetta, 2001, Auto,	31.3
Volkswagen, Jetta, 2001, Auto,	29.5

Source: NHTSA, Data file from Alan Berkowitz.

Select One



# Linking Results\*



\*Preliminary from November 2002, using 53,278 vehicles. Fuel economy database is incomplete, missing most of the 2002 model year passenger vehicles.

# Refine Fuel Efficiency

- On-Road, In-Use Fuel Efficiencies Differ from EPA's Unadjusted 45/55 Combined Estimate
  - ◆ Adjust for On-Road Shortfall (Hellman and Murrell, 1985)
  - ◆ Adjust for In-Use (Crawford, 1983)
- Details may be found on EIA's Transportation Website ([www.eia.doe.gov](http://www.eia.doe.gov))

# Derived Sup. Data

- Energy Consumption equals
  - ◆ EIA-Adjusted MPG • VMT
- Energy Price, excluding taxes
  - ◆ EIA Monthly Supplier Survey
    - ★ Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales report," and
    - ★ Form EIA-782B, "Resellers'/Retailers' Monthly Petroleum Product Sales Report."
- Energy Cost equals
  - ◆ Energy Consumption • Price

# Next Steps

- Update Final 2001 NHTS Data in EIA's Statistical Linking Process
  - ◆ Investigate use of linking process for non-Core NHTS Samples
- Update Fuel Economy Database with 2002 model year vehicles (NHTSA)
- Review Statistical Linking Logic and Results and Derive Supplemental Data
- Document Procedures
- Release Data for Public Use

# For Updates

[www.eia.doe.gov/emeu/rtecs/contents.html](http://www.eia.doe.gov/emeu/rtecs/contents.html)